Ministry for the Environment
Manatū Mō Te Taiao

Ministry for Primary Industries
Manatū Ahu Matua

2021/2022 Intensive Winter Grazing Module

New Zealand Government

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Overview

Farmers and growers play an important role in protecting the health of our catchments through what we do on the land. The health of your catchment is important to your community for many reasons. Our rivers are places we fish, swim, and gather food. Rivers and groundwater are the sources of communities' drinking water.

Te Mana o te Wai is the fundamental concept that underpins freshwater management in New Zealand. This means we need to look after the wider environment (like our land and our trees) because these need to be healthy to keep our water healthy. As key land-users in catchments, farmers and growers must manage their land in a way that gives effect to Te Mana o te Wai locally. In order to give effect to Te Mana o te Wai, regional councils will develop rules for the use of land and freshwater that farmers and growers need to follow.

The Government has put in place new freshwater national direction to support the health and values of waterways. They include regional and catchment specific plans that will be developed and notified before the end of 2024. Some of the relevant national rules, such as expansion or further intensification[1], will apply before regional plans are notified. There is a high level of pollution that can result from Intensive Winter Grazing (IWG), and so minimum standards will apply from May 2022.

For the 2021 winter, farmers and growers have the opportunity to develop or update their farm plan's IWG section by using this module. This will mean that you are better prepared for developing the IWG aspect of your certified Freshwater Farm Plan in due course. Freshwater Farm Plan roll-out will start in early 2022, with a staged roll-out for development and certification of mandatory Freshwater Farm Plans.

We know you have your crops planted, paddocks set and ready for grazing for winter 2021, but it is expected you will still implement appropriate mitigation actions to benefit freshwater quality and animal welfare. We are also aware many farmers are already well prepared with existing plans that include mitigation actions which go beyond what is in this module.

Your council may already, or will in future plans, have further controls on IWG practices that go beyond the guidance in this document. If your council has decided, or decides in future through consultation with communities that stricter controls are necessary, these regional rules will need to be reflected in your farm plan. It is important you check your relevant regional rules to ensure you comply with these, and these should be built into your plan.

For this winter, you will see increased monitoring by central and local government agencies to see how it is all going. Now, before winter grazing begins, is an opportunity to think about your IWG practices and consider if you have the right mitigation steps planned and ready to use.

Support is available through your local regional councils, industry bodies, irrigation schemes, and farm advisory professionals. We encourage you all to get in touch with the agency you know best. They are ready to help as they understand the different regional/catchment situations and have existing systems which you need to follow. Their links can be found at the end of this document.

In the meantime, this module should provide some helpful actions on how to plan for a successful 2021/2022 winter grazing season and look after your animals.

How can you be successful?

As crops are already in the ground for the 2021 winter, **the most important actions you can take this season to avoid pollution entering waterways are:**

1. Identify Critical Source Areas (CSAs) and keep stock out of them
2. Keep baleage and water troughs away from CSAs
3. Have a 5m (at least) buffer next to waterways
4. Graze down the slope and back fence (not for deer)
5. Plan how you will manage adverse weather events this season
6. Replant land left bare after IWG as soon as is practicable
7. Minimise negative impacts on cultural values of Te Mana o te Wai (the mana of the water) and te hauora o te wai (the wellbeing of the water) by minimising sediment, nutrient, and pathogen losses
8. Plan for next season to make improvements and meet regulatory requirements
9. Plan for next season to ensure you are not planting land for IWG that is too steep
10. Maintain good animal health and welfare.

1 The regulations requiring a resource consent to expand your area of winter grazing continue to apply. If you decided to increase IWG, or have IWG for the first time this year (2021), you will require a consent. If you have not obtained a consent it is recommended you discuss the best course of action with your council.

Intensive Winter Grazing Practice Expectations

To do nothing is not an option. It is expected that farmers are following a pathway of continuous improvement that contributes to restoring and protecting Aotearoa's waterways and wetlands. Therefore, there are four critical steps you as a farmer can take:

Plan – you need to have a winter management plan now, including an adverse weather plan, especially when you know there are risks involved. You should create a simple farm map with your wintering blocks, risks, and mitigations identified. Include instructions for staff such as, stack baleage here, shift portable troughs and/or graze from the top of the slope or stand-off area.

Remember photos at the beginning of the winter grazing season are helpful to demonstrate your initial set-up.

Do – during the winter, if things are not going to plan, change your plan, including your adverse weather plan. Write down the actions you changed and take photos. Before and after photos will be a good record of your progress. If the plan has been certified, you will need to talk to your advisor.

Check – check your plan as the season progresses and make adjustments where necessary to reduce the environmental and animal welfare risks. Ask for help when and where you need it. Your success is part of your community's success and help is available.

Reflect and Review – at the end of your winter season it is important to look back on what worked well, actions in need of improvement, and what you will do next season to ensure you can comply with the national IWG regulations. Compliance with the regulations may include being able to meet the permitted activity conditions, or gaining a resource consent, or (if available/required in your area) producing a Freshwater Farm Plan which is certified. You should be able to demonstrate continuous improvement to meet catchment and community goals.

In practical terms, a well-planned wintering system will:

- Minimise soil and nutrient loss to the environment, especially your local waterways and wetlands, which are part of a wider catchment.
- Protect valuable topsoil by minimising or having no pugging.
- Plan for adverse weather events.
- Make it easier for your farming team to do the right thing.
- Follow your local regional council regulations. **Remember,** not every regional council has the same rules on IWG. You must check with your local regional council to see if there are extra practices required under your local regional plan.
- Support good animal health and welfare.
  - There is a practice guideline developed by the Pan-Industry Winter Grazing Action Group which provides helpful information. For more information go to: **www.mpi.govt.nz/dmsdocument/41683-Short-term-expected-outcomes-for-animal-welfare**
  - Minimum requirements under animal welfare codes can be found here: **www.mpi.govt.nz/welfarecodes**
    Contact the Ministry for Primary Industries on **0800 00 83 33** for any animal welfare concerns.
  - Talk to your veterinarian for advice on animal health and nutrition.

Step One: Plan

Your winter management plan and risks identified for your paddocks being grazed.

For this winter, it is better to have a simple plan that can be easily accessed and understood by you and your staff than a complicated one that is going to take a lot of time to prepare. You know there will be difficult scenarios that will need to be managed such as an extreme weather event, so have your plan ready for that.

Consider your catchment's values and the risk factors for your farm. For example:

- What are the community values for your waterway? They may include: mahinga kai, swimming, fishing, and drinking water sources. Your local regional plan is a good place to start to identify relevant values for your waterway.
- What is the likelihood of any risks that would impact these values occurring: low, medium, or high?
- What are the consequences of your grazing: slight, serious, or major?
- Do your proposed mitigations reflect the values of the catchment and the degree of risk of IWG?

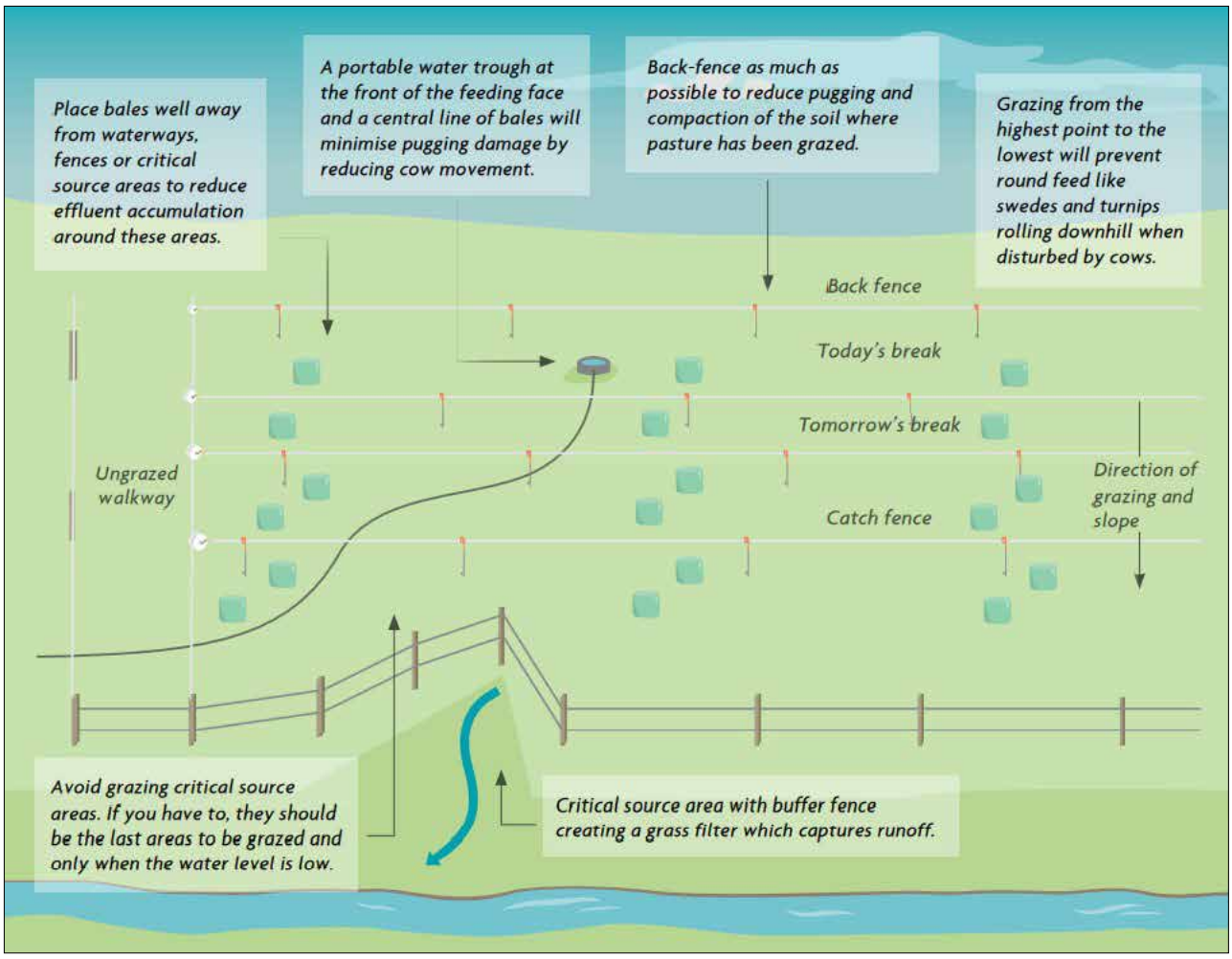
Mitigation Consideration 1: Soil type

Generally, soils will have two types of risk.

Heavy soils, which are poor draining (such as deep silty (palic) or clay soils), will have significant risks in very wet weather. For example: waterlogging, pugging, deep mud, and surface run-off which all exacerbate sediment, phosphorus (P) loss and fecal contamination of your local waterways, wetlands, and sub-catchment areas.

Lighter soils which are freely drained (i.e. stony, shallow, silty or sandy soils), will have lower risks from pugging and run-off of sediment, fecal material and P, but will have risks of high nitrate (N) leaching. This is where postgrazing management, such as the use of a catch crop, is recommended to take up the extra nitrogen left in the soil.

Figure 1: Example winter grazing plan



Source: Dairy NZ, 2015

Your plan should consider the range of soil types on your farm and the advantages and disadvantages of both for your winter grazing management.

Mitigation Consideration 2: Waterways and wetlands

Your farm is part of an environmental system within and beyond your farm boundaries. Wintering your stock near a waterway, wetland, CSA, and/or drains can have significant environmental risk of direct contamination to those features with run-off of sediment, P, and fecal material.

These environmental areas must be protected through your mitigation actions.

For example:

Scenario one: Your animals are being wintered on flat paddocks on light soils with no waterways present. Stock are grazed on and off kale with a sacrifice paddock where they are fed silage.

Risk Assessment: Medium risk situation: There is a lower risk of P, sediment, and fecal run off but the risk of N leaching remains high.

Likely mitigations:

- Use of portable water troughs to reduce stock movements.
- Early establishment of a cereal catch crop following kale to mop up surplus N.
- Various contingency options likely to be available for severe weather events, such as keeping stock off kale crop and feeding additional silage on a sacrifice paddock while snow is on the ground or soils are saturated.
- Very low-cost mitigations – cereal catch crop provides silage crop before regrassing or establishment of next fodder crop and sacrifice paddocks likely to need to be re-established.

Scenario two: Your animals are wintered on rolling country with deep palic soils prone to pugging, with numerous waterways and gullies on 100 percent fodder beet with silage fed in-situ.

Risk Assessment: This is a multiple high-risk situation presenting significant catchment risks which will require significant temporary and permanent mitigations. There are likely to be few contingency options available in severe weather, which will increase environmental and animal welfare risks.

Likely mitigations:

- Use of temporary water troughs to reduce need for stock to walk long distances on slopes in mud to find adequate water.
- Access by machinery to feed roughage will be difficult in very wet or snowy conditions and will likely exacerbate soil damage and pugging. Baleage may need to be stockpiled in paddocks for extreme events.
- Permanent fencing at the break of slopes in any gullies with rough vegetation established throughout sides and length of gullies.
- Establish temporary buffer strips of rough grass (such as cocksfoot) adjacent to any waterways when crops are sown. These should be fenced off temporarily while crops are being grazed. They should not be grazed until the end of winter. The width of buffer strips may need to be significant and will need to consider slope angle and length. More than 10 metres is likely to be required to be effective in slowing overland flows to filter sediment.
- Where water is concentrated into channels along tracks, use permanent culverts to intercept flows and direct water onto grass paddocks to disperse flow and filter sediment.
- Construct sediment traps along the edge of drains and/or waterways at strategic points to slow flows and enable sediment to drop out of suspension. These traps should not impede fish passage or the natural waterbody.
- Areas in-field that are identified as natural CSAs which concentrate flows will need to be excluded from crops and left in pasture and/or fenced off.
- Stock should be grazed from top of slope to bottom to ensure the most risky areas are grazed last, allowing un-grazed crop to act as a buffer strip. If this can't be done, then grass buffer strips will need to be proportionately wider (20 metres or more).
- In severe events, adverse effects on animal welfare are likely to be a significant risk as it may be difficult to provide adequate shelter, lying areas, and sufficient volume of feed.
- In areas which present insurmountable problems and high risks, it is best that they be excluded from use for fodder crops (i.e. areas with very steep slopes, waterways, or that are at risk of flooding).

The above photo shows an example of poor practice winter grazing, with grazing of a CSA. Poor winter grazing practices can have significant impacts on water bodies such as rivers and estuaries, as well as the loss of productive soil. Source: MfE

Mitigation Consideration 3: Groundwater

You need to consider that your IWG could contaminate the groundwater, especially if you have lighter soils with a high water table or paddocks with extensive artificial drainage. Therefore, care needs to be taken if you are in a community protection zone or near any drinking water bores.

Mitigation Consideration 4: Slope

You need to be aware that an increased degree of angle and length of slope can increase the speed of water flow, which exacerbates run-off and any associated environmental risks. To prepare for this, it is a good idea to put on your map the classes your paddock/s fall into:

- Class A-B Flat (0-7 degrees)
- Class C Rolling (8-15 degrees)
- Class D-E Easy Hill (16-25 degrees)
- Class F-G Steep Hill (26-35 degrees)

Here are some useful links:

- https://nzsss.science.org.nz/app/uploads/2016/04/luc_handbook.pdf
- MPI Erosion Susceptibility Classification
- Soil drainage map

Increased slope, and therefore, increased speed of overland flow pathways, will always increase your risks around P, sediment and *E.coli* losses from your winter forage crops.[2]

The steeper the slope the more mitigations are likely to be required to manage the increased risk of contaminant loss. There will be some slopes that are too steep to be suitable for winter grazing. It is also important when managing these risks to remember that having a riparian margin is not the same as a buffer strip. See Figure 2.

Mitigation Consideration 5: Stock class

Generally, the heavier the stock the greater the environmental risk. Bovines may be associated with high N loss, whereas other stock such as deer and sheep may be associated with lower N losses but are likely to present other risks. This means not all mitigations will be appropriate for all stock types. For example, deer find it stressful to be back fenced.

Mitigation Consideration 6: Cultural values

Wherever these have been identified by your local hapū/iwi, it is important to respect these values and protect them. Your local regional and district council should be be able to tell you if there are any cultural sites identified on your property. They may also be able to help you find any cultural values that have been identified for your catchment.

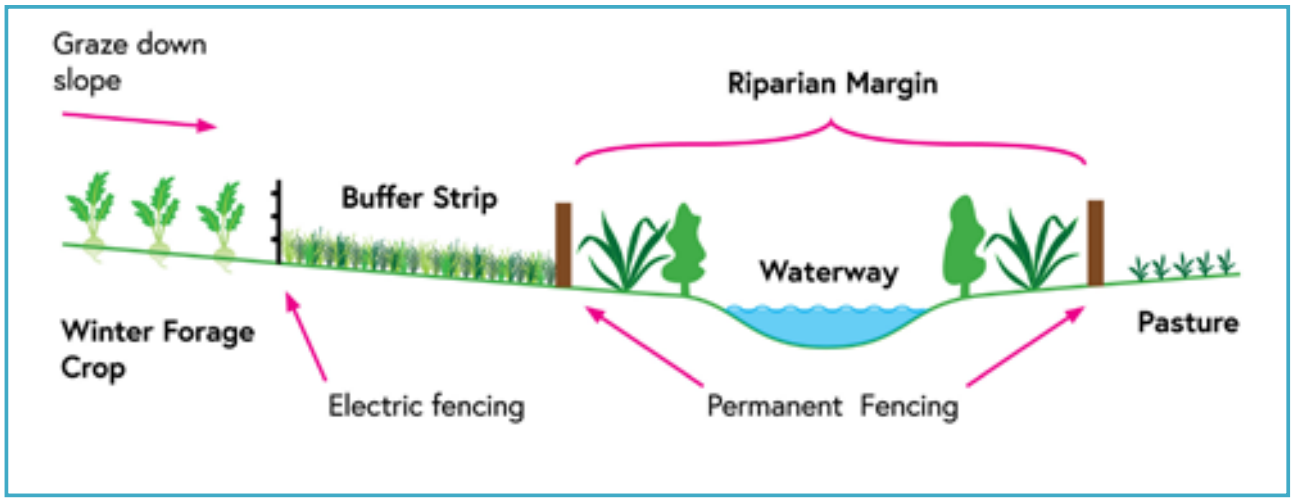
Such sites could include: mahinga kai (an area that used to be/is cultivated for food production) and/or a wahi tapu (sacred/burial) sites. Excessive nutrient loss, sediment loss and fecal contamination are all likely to impact these values.

Mitigation consideration 7: Critical source areas

These are areas in your paddock/s or on your farm that can contribute disproportionately large amounts of nutrient and sediment losses to waterways. They are often wet areas such as gullies and swales, where overland surface runoff meets and can transport sediment and nutrients.

The surface flow in these areas usually happens during or after a rainfall event of sufficient size and intensity to move water over the surface of the soil rather than draining through it. The impact of heavy rain will depend on the characteristics of your soils, the slope of your land, and

Figure 2: Example of buffer strip and riparian margin



Source: Amuri Irrigation Company, 2021

2 The rate of N loss is not as affected by slope because the predominant pathway for N loss is leaching, not overland flow. The risk of N loss is more likely to be impacted by soil type than slope.

whether your soils often reach field capacity during the wintering period.

During your planning these areas should be excluded from cultivation and ideally left in rank grass. However, for the 2021 season, if you already have crops in these areas, it is extremely important that these areas are identified on your map, fenced off, and left ungrazed until any risk associated with overland flow has passed. In some parts of the country with heavier soils and high soil moisture levels, such as South Otago and Southland these areas should only be grazed when conditions are dry for a short period and the animals should be removed within a few hours.

These areas need to be identified on your map and fenced off to be protected.

Figure 3 demonstrates how CSAs should be protected. Your buffer zone needs to reflect the degree of risk.

Mitigation Consideration 8: Fodder crops

Crops are meant to support a higher density of stock, but they can increase the environmental and animal welfare risks of your winter stock management. Crops can compromise management options because of the need to transition animals on and off it. Pasture-based wintering, which avoids the need to transition and have reduced stock movement, may be a more attractive option for you as a farmer in the future.

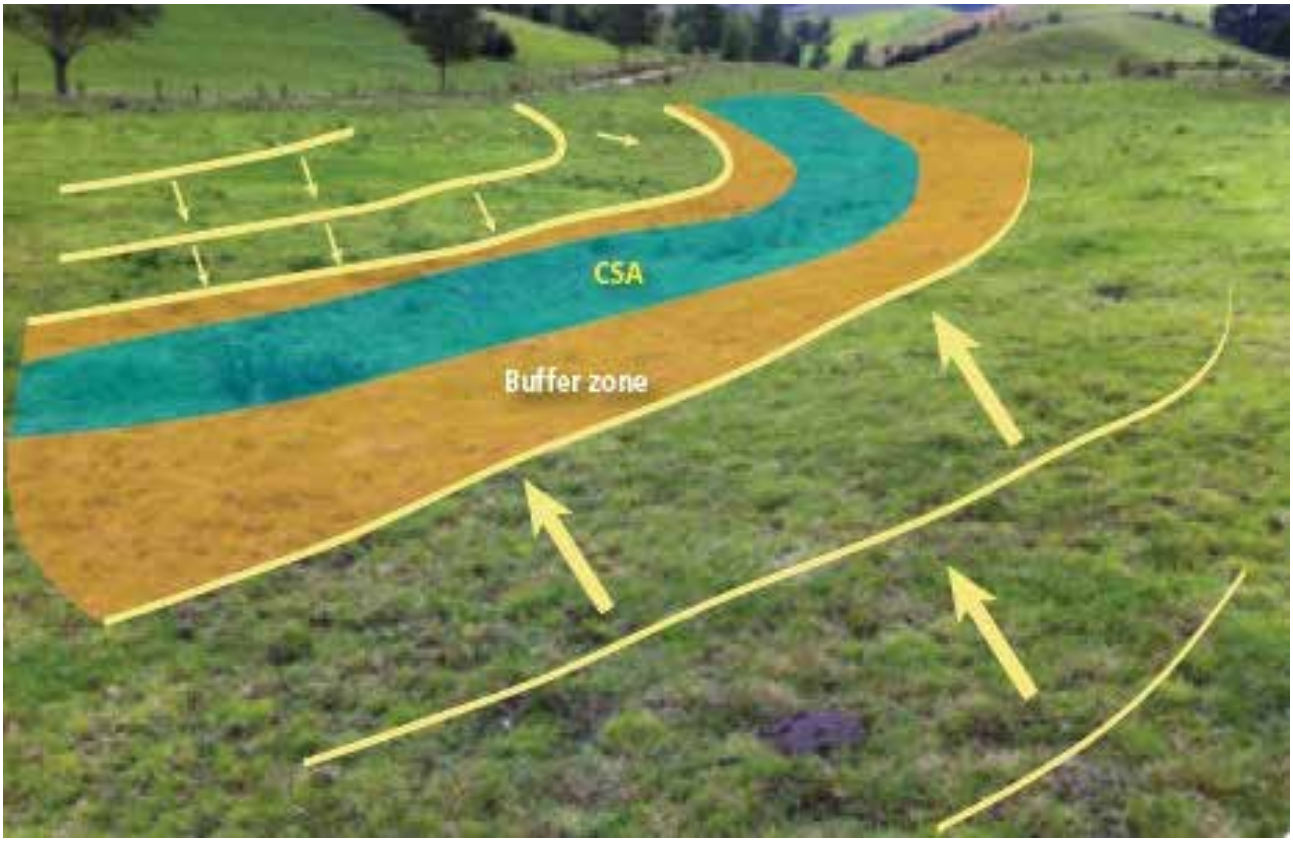
There are some emerging technology and techniques which you may consider trying next season. For example, strip cultivation leaving "emergency areas" uncultivated, non-fodder crop farm systems, using sediment traps and bunds, permanent retirement of your CSAs, and a greater alignment of your buffer width to the slope and soils risk.

Mitigation Consideration 9: Adverse weather events

It is important to plan for an adverse weather event. Identify and write down the location of an alternative grazing or holding area. Also, identify when stock should be moved. You will need to have a plan that will provide/ consider:

- What shelter, fresh clean water, and feed is available in your alternative grazing or holding area?
- How far do the animals have to walk to get there and is it easy to move them there?
- What potential is there for soil damage, runoff to surface water and groundwater, and any flood risk?
- Cattle find hard surfaces such as concrete and laneways as uncomfortable as wet areas. Standing off on these surface types will not compensate for lying in the paddock.
- Are appropriate buffers are in place to reduce overland nutrient flow to waterways? And are your CSAs protected?

Figure 3: Critical source area example



Source: Dairy NZ, 2019

Mitigation consideration 10: Animal Welfare

Animal care is an important part of any winter grazing system. To be successful you will need to assess:

1. **Lying time:** This time allows the animals to rest, sleep, and helps reduce the risk of lameness. The Animal Welfare Act 1999 requires animals to display their normal behaviours such as lying down. Wet mud and surface water will have an impact on lying time, so a suitable lying area should be provided, especially if weather conditions do not improve within 24 hours.
2. **Adverse weather:** If the animal is clean, dry, and there is little rain or wind, cold stress is rare. Factors that increase the risk of cold stress are a combination of cold, wet, and windy weather; wet and muddy ground conditions; low body condition score; low feeding levels; and sickness. Therefore, animals may need an extra feed intake.
3. **Contingency Plan:** This should be where animals can be shifted to a drier, sheltered area that is easily accessed and will have enough feed available.
4. **Access to fresh clean water:** It is important that access to clean water is within easy walking distance to reduce energy output used to walk to a trough. It also avoids the animal experiencing stress from thirst. Portable troughs make shifting and access easier for everyone and allow the use of a back-fence.
5. **Animal diets:** Animals must be transitioned onto winter crops to allow the gut bacteria time to adjust to a new feed source. The time required will depend on the crop. For example, kale, swedes, turnips, and rape will have a shorter time (7 - 10 days) than fodder beet (14 - 21 days)[3]. Talk to your veterinarian or animal nutritionist for advice.
6. **Calving and lambing in mud:** These conditions increase the risk of death and infections to the mothers and their offspring. Animals close to giving birth should be shifted to a suitable area to calve/lamb. Cows wintered in fodder beet will spring up less due to the low protein content – watch your stock on this crop closely.
7. **Biosecurity:** avoid proximity to neighbours' stock where contact or mixing of animals from different farms could occur. Record all movements or cattle and deer through NAIT.

3 Transition times are likely to be different for deer, if unsure you should confirm this with your veterinarian or animal nutritionist.

Step Two: Do

Implementation of management actions every-day

You will need to follow your plan and focus on medium and high-risk impacts identified as part of your risk management and adverse weather plan.

Create and share your winter grazing plan with your farm team so everyone knows what they need to do during winter to care for the animals and the environment, and why this is important.

Other mitigation management tools you may want to consider for this and next season include:

1. The winter grazing area is checked at least once daily during grazing to ensure all animal and environmental needs are being met.
2. Leaving an un-grazed buffer from waterways of not less than 5m at any point.
3. CSAs should not be grazed during the winter season.
4. Portable troughs and supplementary feed sites are located away from waterways and CSAs because that is where stock tend to congregate.
5. Strategically start your grazing from the top of the paddock and work down the paddock. Stock are likely to waste more feed when grazed downhill – monitor the residual feed and adjust the amount being offered accordingly.
6. Be careful about grazing towards CSAs and waterways.
7. Sow your crops along, rather than up and down, the slope of a paddock.
8. Back fencing is used to minimise animal movement but does not restrict access to shelter or drier lying areas where possible. Back fencing is not appropriate for deer.
9. Use a nutrient modelling tool to check and manage nitrogen losses occurring on-farm over winter and spring. Soil testing for N and P is critical.
10. If possible, use on-off grazing to dilute urine patches more widely.
11. Install sediment traps to minimise soil runoff from the cropped area into waterways and CSAs. Sediment traps are not to be installed in natural water courses.
12. If possible, paddocks have multiple exit and entry points to avoid congregation of stock at one point.
13. If possible, match your stock class to the land class in the paddock so the risk can be mitigated.
14. Keep to your plan, for further information visit:
    - beeflambnz.com/wintergrazing
    - www.dairynz.co.nz/feed/crops/wintering-cows-on-crops/
    - www.deernz.org/sites/dinz/files/Deer_EMCoP_Apr%202018_web_interactive.pdf

Step Three: Check

It is important to note down this season's actions.

1. As mentioned previously, it is important, to take photos before, during, and after winter paddocks are grazed. These photos are useful for monitoring and providing proof of actions.
    - What went well and why? Take a photo and date it.
    - What did not go well and why? Take a photo and date it.
2. Did you graze the number of animals and type that you had planned for?
3. Did your mitigation practices, such as alternative grazing paddocks/holding areas in an adverse event, portable troughs, back fencing, and enough supplementary feed to prevent excessive pugging and run-off, work as planned?
4. What will you change in your farming system next season to manage your environmental risks and animal welfare?

Step Four: Reflect and Review

How did it go?

Next Season – what will change?

Post Grazing Management

1. Would a catch crop be a good option to take up some of the urinary N left from this year's winter grazing?
2. Did your management during winter allow you to re-sow or re-grass as soon as practical (based on weather and soil moisture levels) and to minimise the time that the land was bare?
3. With the new regulations coming into force, what would or should you change in identifying and managing IWG risks?
4. Remember the four stages of winter management:

Stage 1	Paddocks selection, planning and impact on cultural values – 6-12 months prior to starting crop establishment
Stage 2	Block set up – early summer to pre-grazing
Stage 3	Crop grazing – May to September
Stage 4	Post grazing management – August to November

Mitigating your wintering practices can help reduce run-off, maintain soil productivity, and protect our waterways. Strategic winter grazing is a low-cost good management practice that must be part of your overall farm planning system. The winter of 2021 is about education and assurance that you understand the catchment values, contamination risks, and mitigation measures associated with winter grazing on your farm.

Farmer Tips

"My farm is relatively flat. Each winter, after some heavy rain, I look at the paddocks I am hoping to crop next year. I mark out the CSAs then set up a semi-permanent fence because it is harder to see them in spring."

"If placing bales out, do so away from waterways and CSAs. Use bale rings to improve utilisation."

"Use a portable trough to give cows easy access to fresh clean water. Place the portable trough at the side of the break for ease of shifting."

"When I plan how much feed I need for winter, I add an extra 10 percent to cover extreme weather events."

"We lift enough fodder beet to feed our herd for five days. This way, if the cows are taken off the crop in bad weather, we can maintain their diet and will "not have to retransition them."

"It is important to understand that risk factors are cumulative and will influence the size and nature of your mitigations to avoid any environmental degradation."

Useful links

Examples of mitigation and tools:

- AIC Environmental Collective- Winter Management Good Management Practice (GMP) https://www.amuriirrigation.co.nz/sustainability
- Winter-Management-Plan-Interactive-1 (amuriirrigation.co.nz)
- Winter forage crop grazing and wet weather management – Guidelines for FEP Auditors www.ecan.govt.nz
- Farm Plan- Environment Module www.beeflambnz.com
- Break Fed Wintering www.dairynz.co.nz/wintering
- A guide to preparing resource consent applications for intensive farming activities in the Horizons Region www.horizons.govt.nz
- A guide to intensive winter grazing without a consent https://www.es.govt.nz/environment/water/essential-freshwater-package

Industry resources

- https://beeflambnz.com/wintergrazing
- https://www.dairynz.co.nz/feed/crops/wintering-cows-on-crops/paddock-selection
- https://www.dairynz.co.nz/media/5793045/break-fed-wintering.pdf
- https://www.dairynz.co.nz/feed/crops/wintering-cows-on-crops/grazing-the-winter-crop
- https://www.deernz.org/deer-facts

Appendix 1

Intensive Winter Grazing Plan Template

Note: The plan you develop using this template needs to be bespoke and regionally adaptable to your farm so that you can manage your specific risks, and ensure your focus is directed at freshwater health and animal welfare, rather than just regulation adherence.

You should fill out this template using the guidance in the Intensive Winter Grazing Module (the Module). The Module includes links and further resources to help you identify the risks associated with your winter grazing and the appropriate mitigations.

Purpose: To support you as a farmer to undertake winter grazing activities. This completed plan should provide sufficient detail and content to manage your winter grazing activity this year. It is important you check your relevant regional rules to ensure you comply with these, and these should be built into your plan.

How to use this: This document is not a tick box exercise and will require you to think through why and how you will be doing what you plan to do. The result should be fewer environmental impacts, better animal health, and increased soil health. Note that this will be a starting point and further detail will be required depending on the location, form, and extent of your winter grazing. If you intend to expand your winter grazing activities, you will need a consent under the new National Environmental Standard for Freshwater interim intensification rules. It is recommended you talk to your regional council if you think you may need a consent.

Context: At a high level, you need to identify what effects are likely to come from your winter grazing activities. This will depend on the land you are farming as well as your management of it. The plan you create using this template will provide you, and any others who may require a copy (for example your regional council), with assurance that you are doing a good job managing the risks that are present in your specific situation.

Process: This should be a 'living' document and adjusted overtime as needed. There are four main steps that this document takes you through:

Step 1: PLAN – This is where you gather information, assess what risks are present, and make a plan to manage the risks you identified. In this document, this is Step 1.

Step 2: DO – This is where you implement your management actions and adverse weather plan. Make sure you are also monitoring your impacts. In this document, this is Step 2.

Step 3: CHECK – This is where you check up on the implementation of your management plan and your progress against your plan. In this document this is Step 3.

Step 4: REFLECT AND REVIEW – This is where you review and adjust the plan as needed. In this document, this is Step 4. You can then you start the steps again in preparation for the next winter season.

Step 1: Farm and Cropping Winter Management Plan

Background Information

Years covered by this plan:			
Farm Name:		Water management zone:	
Owner: (if applicable)		Water management sub zone (if applicable):	
Manager:		Ground water management zone:	
Contact details: Phone:		Email:	
Mailing address:			
Location of property: (A different management plan is expected to be completed per property).			
Legal Description and Agri base number:			
Total Farm area (ha):			
Average area used for wintering every year:			
Greatest Area (hectares) used for wintering between 1 July 2014 – 30 June 2019:			

Note this is the reference period for the interim intensification rules in the NES-F for winter grazing. Under the new rules the area of the farm that is used for intensive winter grazing must be no greater than the maximum area of the farm that was used during the reference period. Any additional intensive winter grazing will require a consent.

Farm Mapping and Paddock Selection

All areas proposed to be winter cropped and grazed on the farm need to be identified on a map. Use this section to include a farm map showing paddocks to be used for wintering. Please include key features like paddock boundaries, and waterways, wetlands, bores, and drains.

Catchment values and risk identification

You should consider your catchment's values. These may include mahinga kai, swimming, fishing and drinking water sources. Your local regional plan is a good place to start to identify the values relevant to your waterway. Your regional council may also be able to help you identify sensitive sites like the closest drinking water abstraction point.

Catchment values

Next you should identify what risks your winter grazing activity may pose and what the impacts may be.

You can identify risk at a paddock or Land Management Unit scale. A Land Management Unit is an area of land that can be farmed or managed in a similar way because of underlying physical similarities. For winter grazing activities, you can group together paddocks that have similar slope or soil characteristics.

Further information to help you identify risks can be found at the following links:

- beeflambnz.com/wintergrazing
- www.dairynz.co.nz/feed/crops/wintering-cows-on-crops/
- www.deernz.org/sites/dinz/files/Deer_EMCoP_Apr%202018_web_interactive.pdf

You should do a separate risk identification for each paddock you are considering for winter grazing. You will likely find that some paddocks have less risks than others and therefore the mitigations you will need to put in place are likely to be less onerous.

In the next section, you will describe how you will be managing the risks associated with your planned winter grazing activities.

Risk Assessment

Mitigations

Adverse weather plan

Example: when heavy rain is forecast, I will prepare laneways and grassed paddocks to take on stock as needed. If soils are becoming too pugged or stock health is at risk due to flooding or excess water I will shift my stock to a grassed paddock.

Step 2: Do

This section should be used while implementing your winter grazing activities.

Keep your management plan on hand for yourself as well as others in your team who are supporting you. It will also help you meet the monitoring audit requirements by the Council (if there are any such requirements). Monitoring records may be expected to be provided to the Council upon request.

Action	✓
The winter grazing area is checked at least once daily during grazing to ensure all animal and environmental needs are being met.	
Leaving an un-grazed buffer from waterways of not less than 5m at any point.	
CSAs should not be grazed during the winter season.	
Portable troughs and supplementary feed sites are located away from waterways and CSAs because that is where stock tend to congregate.	
Strategically start your grazing from the top of the paddock and work down the paddock. Stock are likely to waste more feed when grazed downhill – monitor the residual feed and adjust the amount being offered accordingly.	
Be careful about grazing towards CSAs and waterways.	
Sow your crops along, rather than up and down the slope of a paddock.	

Back fencing is used to minimize animal movement but does not restrict access to shelter or drier lying areas where possible. Note: Back fencing is not appropriate for deer.	
Use a nutrient modelling tool to check and manage nitrogen losses occurring on-farm over winter and spring. Soil testing for N and P are critical.	
If possible, use on-off grazing to distribute urine patches more widely.	
Install sediment traps to minimise soil runoff from the cropped area into waterways and CSAs. Sediment traps are not to be installed in natural water courses.	
If possible, paddocks have multiple exit and entry points to avoid congregation of stock at one point.	
If possible, match your stock class to the land class in the paddock so the risk can be mitigated.	

Step 3: Check

It is important to note down this season's actions, especially things that did not go as planned and how you managed this.

1. Record any areas used for winter grazing that were not part of your original plan.

2. Record any major changes to the management actions you identified at the beginning of the season.

3. Keep records of your practice and photographic proof somewhere easily accessible to ensure they are available if you are required to be audited.

Action	Dates Taken	Stored/Saved In:
Photos of wintering paddocks prior to stock grazing		
Photos taken during winter		
Photos taken at end of the winter season		

Step 4: Reflect and Review

Once you have gone through a winter grazing season, it is important to reflect on what worked well, and what didn't. Did your management activities effectively manage the risks present?

This should be done at the end of every winter grazing season. Some questions have been provided below to help get your thoughts flowing:

1. Did you graze the number and type of animals you were intending?
2. Do you have photos of the paddocks grazed?
3. How long were stock on the grazing block for?
4. Was the location of water troughs and supplementary feed suitable to prevent substantial pugging damage?
5. Was the paddock sown and grazed to plan?
6. Did you need to implement your adverse weather management plan?
7. How are you planning to manage your block/s post grazing?
8. Based on your reflections, what will you change next season?


New Zealand Government